Amendments To the Claims:

Please amend the claims as shown.

1. (currently amended) A turbine engine, ~~with~~ comprising:

a turbine shaft having a plurality of disks and a plurality of blades, ~~which has a~~ the ~~number of~~ disks arranged adjacent to one another, and attached to the ~~each of which the disks a number of moving~~ blades ~~are attached~~ in a star arrangement, wherein these ~~moving~~ blades ~~can be~~ are cooled with at least one coolant which flows through coolant channels inside the ~~moving~~ blades, ~~characterized in that~~ and

~~multiple~~ a plurality of cavities ~~are enclosed~~ formed between two directly adjacent disks in a radial direction, said cavities ~~in each case encompassing~~ enclosing the turbine shaft in a circumferential direction and in which at least one coolants ~~are~~ is present at differing pressures, wherein the coolant ~~or coolants can in each case~~ flows into and out of the cavities.

2. (currently amended) A turbine shaft according to Claim 1, ~~characterized in that~~ wherein the radially adjacent cavities are sealed from one another.

3. (currently amended) A turbine shaft according to Claim 1 ~~or 2~~, ~~characterized in that~~ wherein the ~~integrated~~ coolant channels of each and every ~~moving~~ blade are arranged on one and the same disk communicate with one and the same cavity, which is enclosed by ~~means of~~ an adjacent disk, via a radial bore or passage.

4. (currently amended) A turbine shaft according to ~~one of~~ Claims 1 ~~to 3~~, ~~characterized in that~~ wherein at least one of the cavities communicates with a coolant supply or a coolant discharge.

5. (currently amended) A method for cooling a turbine engine, ~~in accordance with one of Claims 1 to 4, characterized in that~~ comprising:

providing a turbine shaft having a plurality of disks and a plurality of blades, the disks arranged adjacent to one another and attached in a star arrangement to the blades, the blades cooled with at least one coolant which flows through coolant channels inside the blades; and

providing a plurality of cavities enclosed between two directly adjacent disks in a radial direction, each cavity partially enclosing the turbine shaft in a circumferential direction and in which at least one coolant is present at differing pressures, wherein the coolant flows into and out of the cavities; wherein

keeping the pressure of the coolant which flows through a first cavity ~~is~~ greater than the pressure of the coolant which flows through ~~the~~ a second radially outwardly adjacent cavity.

6. (currently amended) A method for cooling a ~~moving~~ blade of a turbine engine ~~according to Claim 5 characterized in that~~, comprising:

providing a turbine shaft, having a plurality of disks and a plurality of blades, whereby the disks are arranged adjacent to one another, and to each of the disks blades are attached in a star arrangement, wherein these blades are cooled with at least one coolant which flows through coolant channels inside the blades; and

providing a plurality of cavities which are enclosed between two directly adjacent disks in a radial direction, said cavities in each case encompassing the turbine shaft in a circumferential direction and in which coolants are present at differing pressures, wherein the coolant or coolants can in each case flow into and out of the cavities, wherein

keeping the pressure of the coolant which flows through a cavity ~~is~~ greater than the pressure of the coolant which flows through the radially outwardly adjacent cavity;

circulating live steam ~~flows~~ in the innermost cavity,;

circulating used steam in the next radially outwardly adjacent cavity; and

circulating fresh air in the next radially outwardly adjacent cavity.

7. (new) A turbine shaft according to Claim 2, wherein the coolant channels of each blade are arranged on a companion disk of the blade and communicate with a companion cavity, which is enclosed by an adjacent disk via a radial bore or passage.

8. (new) A turbine shaft according to Claim 2, wherein at least one of the cavities communicates with a coolant supply or coolant discharge.

9. (new) A turbine shaft according to Claim 3, wherein at least one of the cavities communicates with a coolant supply or a coolant discharge.

10. (new) A method for cooling a turbine engine according to Claim 5, further comprising: sealing the radially adjacent cavities from one another.

11. (new) A method for cooling a blade of a turbine engine according to Claim 6, further comprising sealing the radially adjacent cavities from each other.